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PROCEEDINGS

OF

THE ROYAL SOCIETY.

1839.

No. 38.

April 11, 1839.

The MARQUIS of NORTHAMPTON, President, in the Chair.

Lieutenant H. Alexander Ormsby, I. N., was balloted for, and duly elected into the Society.

A paper was read, entitled, "On a new equi-atomic compound of Bicyanide with Bin oxide of Mercury." By James F. W. Johnston, Esq., F.R.S.

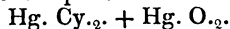
In this paper an account is given of the properties of a salt, obtained by agitating with red oxide of mercury a small proportion of hydrocyanic acid, and which the author finds to be distinguished from the bicyanide of mercury by its sparing solubility in cold water, by the strong alkaline reaction exhibited by its solution, (a property which indicates an excess of mercury,) and by its susceptibility of detonation by heat, depending on this excess being in the state of an oxide, and on the action of the oxygen on a portion of the carbon of the cyanogen it contains, and the presence of which is shown by the disengagement of hydrocyanic acid gas when acted on by hydrosulphuric and hydrochloric acids.

The analysis of this salt, given by the author, shows it to consist of

Carbon.....	5·203
Nitrogen	6·025
Oxygen	3·098
Mercury	85·674

100.

The formula of which composition is as follows :



April 18, 1839.

JOHN WILLIAM LUBBOCK, Esq., V.P. and Treas.,
in the Chair.

John Thomas Graves, Esq., M.A., and the Rev. Samuel Roffey Maitland, were balloted for, and duly elected into the Society.